2/4/82 D82-S8750-1 A

# WISCONSIN EMPLOYMENT AND ECONOMIC INDICATORS

**DECEMBER**

**1981**

WISCONSIN DILHR
DEPARTMENT OF INDUSTRY, LABOR & HUMAN RELATIONS

# WISCONSIN DATA AND SOURCES

| | INDICATOR | SOURCE |
|---|---|---|
| L1 | Average Work Week, Manufacturing | Wis. Dept. of Industry, Labor and Human Relations |
| L2 | Accession Rate, Manufacturing | Wis. Dept. of Industry, Labor and Human Relations |
| L3 | Layoff Rate, Manufacturing | Wis. Dept. of Industry, Labor and Human Relations |
| L4 | Average Weekly Initial Claims | Wis. Dept. of Industry, Labor and Human Relations |
| L5 | Business Failures (Dollars) | Dun & Bradstreet, Inc. |
| L6 | New Business Incorporations | Wisconsin Secretary of State |
| L7 | Business Failures (Number) | Dun & Bradstreet, Inc. |
| L8 | Net Gain in Business Primary Phones | Wis. Telephone Co. and General Telephone Co. |
| L9 | Building Plans Examined | Wis. Dept. of Industry, Labor and Human Relations |
| L10 | Quit Rate, Manufacturing | Wis. Dept. of Industry, Labor and Human Relations |
| C1 | Help-Wanted Advertising Index (Milw.) | Industrial Conference Board |
| C2 | Total Unemployment Rate | of Industry, Labor and Human Relations |
| C3 | Natural Gas Sales | n Public Service Commission |
| C4 | New Car Registrations | Department of Transportation |
| C5 | Electric Power Sales | consin Public Service Commission |
| C6 | Total Security Registrations | Commissioner of Securities |
| C7 | Personal Income | Business Week," McGraw Hill |
| C8 | Average Weekly Earnings, Mfg. | Wis. Dept. of Industry, Labor and Human Relations |
| C9 | Cash Receipts From Farm Marketing | U.S. Department of Agriculture |
| C10 | Contract Construction Employment | Wis. Dept. of Industry, Labor and Human Relations |
| X1 | Birth Registrations | Wis. Department of Health and Social Services |
| X2 | Death Registrations | Wis. Department of Health and Social Services |
| X3 | Natural Net Gain in Population | Wis. Department of Health and Social Services |
| X4 | Marriage Registrations | Wis. Department of Health and Social Services |
| X5 | Consumer Price Index (Milwaukee) | U.S. Bureau of Labor Statistics |
| X6 | Index of Prices Received By Farmers | Wisconsin Department of Agriculture |
| X7 | Net Gain in Residential Primary Phones | Wis. Telephone Co. and General Telephone Co. |
| X8 | Total Job Openings Received | Wis. Dept. of Industry, Labor and Human Relations |
| X9 | Job Vacancies, Manufacturing | Wis. Dept. of Industry, Labor and Human Relations |
| X10 | Manufacturing Employment | Wis. Dept. of Industry, Labor and Human Relations |

NOTES: Selected series are seasonally adjusted by the Bureau of the Census X-11 Variant of the Census Method II Seasonal Adjustment Program. The adjusted data are plotted on arithmetic scales.

SECTION A is a summary of recent data and current changes for all indicators and is presented in chart form. The indicators are presented with cyclical timing as the principle basis of classification.

SECTION B is a summary of Wisconsin Labor Force Estimates, including Employment, Unemployment and Unemployment Rates, and selected U.S. data.

SECTION C analyzes the Wisconsin labor force by industry and by specified Standard Metropolitan Statistical Areas.

SECTION D singles out certain economic time series as being leading or coinciding in relation to movements in aggregate economic activity. They are seasonally adjusted and presented graphically. The indicators are grouped by cyclical timing.

COVER PHOTO: MISS BEHAVE AT REST, Lake Mendota, Madison. Courtesy of William C. Feist and the State Historical Society of Wisconsin.

# THE WISCONSIN ECONOMY

SUMMARY FOR NOVEMBER
BASED ON SEASONALLY ADJUSTED DATA

*Estimates in Brief*

Employment in Wisconsin continued to deterioate from mid-October to mid-November, according to preliminary figures. The percent of the state's working-age population earning wages and salaries set a four year low. The number of people out of work increased from a month ago and a year ago. A slight decline in the seasonally-adjusted unemployment rate was for reasons other than any improvement in the economy. The unemployment rate set a modern-day record for November.

*Employment Rate Lowest since 1977*

The percent of the state's working-age population earning wages and salaries was 53.5 in November, the lowest that figure has been since the fall of 1977. It was down slightly from October's level of 53.7 per cent, and from 54.4 percent in November of 1980.

The U.S. rates for the same months showed the same pattern, but higher percentages.

*Employment Index Deteroriates*

This index, which measures the seasonally-adjusted growth in nonfarm wage and salary employment from the base year of 1977, declined in November from a month-earlier and a year-ago. The higher U.S. rate also declined by the same amount. The index figures (1977 = +7.6%):

| | | | |
|---|---|---|---|
| Wisconsin | 107.6 | 107.9 | 107.9 |
| U. S. | 111.0 | 111.3 | 110.2 |

*Unadjusted Unemployment Increases*

Unemployment increased by 7,600 workers to a mid-November total of 193,400 as more workers lost their jobs. The number of jobless was up 4.1 percent from mid-October and up nearly 25 percent from November a year-ago.

The largest declines were registered by the manufacturing, services and construction sectors of the eight major groupings of nonfarm wage and salary employment, compared to a month earlier.

November's unemployment rate increased to 7.9 per cent from 7.6 percent in October and 6.5 percent in November 1980. This was the highest for any November on record (1954 and on), and the highest since 8.9 percent last March.

Section

# A WISCONSIN ECONOMIC INDICATORS

| INDICATOR | UNIT | MONTHLY SERIES Latest Month | | Mo/Ago | Yr/Ago | % CHANGE Mo/Ago | Yr/Ago | AVG. 1980 |
|---|---|---|---|---|---|---|---|---|
| *LEADING INDICATORS* | | | | | | | | |
| L1 AVG. WORK WEEK, MFG. | | | | | | | | |
| *Unadjusted* | HOURS | 40.3P | Nov | 39.9 | 40.7 | 1.0 | -1.0 | 40.2 |
| *Seasonally Adjusted* | | 40.0P | | 39.8 | 40.4 | 0.5 | -1.0 | |
| L2 ACCESSION RATE, MFG. | | | | | | | | |
| *Unadjusted* | RATE PER | 2.0 | Oct | 2.6 | 2.7 | - | - | 3.1 |
| *Seasonally Adjusted* | 100 EMPL. | 2.2 | | 2.4 | 3.0 | - | - | |
| L3 LAYOFF RATE, MFG. | | | | | | | | |
| *Unadjusted* | RATE PER | 3.7 | Oct | 1.5 | 2.9 | - | - | 2.3 |
| *Seasonally Adjusted* | 100 EMPL. | 2.9 | | 1.4 | 2.3 | - | - | |
| L4 AVG. WEEKLY INITIAL CLAIMS | | | | | | | | |
| *Unadjusted* | NUMBER | 15,418 | Nov | 12,315 | 13,002 | 25.2 | 18.6 | 12,627 |
| *Seasonally Adjusted* | | 11,698 | | 16,870 | 9,865 | -30.7 | 18.6 | |
| L5 BUSINESS FAILURES | | | | | | | | |
| *Unadjusted* | THOUS | 18,195 | May | 20,238 | 5,016 | -10.1 | 262.7 | 4,119 |
| *Seasonally Adjusted* | DOL. | 18,953 | | 27,497 | 5,227 | -31.1 | 262.6 | |
| L6 NEW BUSINESS INCORPORATIONS | | | | | | | | |
| *Unadjusted* | NUMBER | 448 | Nov | 521 | 492 | -14.0 | -8.9 | 548 |
| *Seasonally Adjusted* | | 528 | | 555 | 579 | -4.9 | -8.8 | |
| L7 BUSINESS FAILURES | | | | | | | | |
| *Unadjusted* | NUMBER | 31 | May | 48 | 19 | -35.4 | 63.2 | 16 |
| *Seasonally Adjusted* | | 36 | | 50 | 22 | -28.0 | 63.6 | |
| L8 NET GAIN IN BUSINESS PHONES (PRIMARY) | | | | | | | | |
| *Unadjusted* | NUMBER | -744 | Nov | -1,452 | -942 | 48.8 | 4.7 | 157 |
| *Seasonally Adjusted* | | -286 | | -1,309 | -484 | 78.2 | 40.9 | |
| L9 BUILDING PLANS EXAMINED | | | | | | | | |
| *Unadjusted* | NUMBER | 414 | Oct | 299 | 347 | 38.5 | 19.3 | 303 |
| *Seasonally Adjusted* | | 356 | | 232 | 298 | 53.4 | 19.5 | |
| L10 QUIT RATE, MANUFACTURING | | | | | | | | |
| *Unadjusted* | RATE PER | 0.6 | Oct | 1.1 | 0.8 | - | - | 0.9 |
| *Seasonally Adjusted* | EMPL. | 0.6 | | 0.7 | 0.8 | - | - | |
| *ROUGHLY COINCIDENT INDICATORS* | | | | | | | | |
| C1 HELP-WANTED INDEX (MILW.) | | | | | | | | |
| *Seasonally Adjusted* | INDEX | 45 | Nov | 46 | 66 | -2.2 | -31.8 | 73 |
| C2 UNEMPLOYMENT RATE, TOTAL | | | | | | | | |
| *Unadjusted* | PERCENT | 7.9P | Nov | 7.6 | 6.5 | - | - | 7.0 |
| *Seasonally Adjusted* | | 8.0P | | 8.2 | 6.9 | - | - | |
| C3 NATURAL GAS SALES | | | | | | | | |
| *Unadjusted* | MIL. | 140.1 | Sep | 127.0 | 134.7 | 10.3 | 4.0 | 273.5 |
| *Seasonally Adjusted* | THERMS | 276.9 | | 258.7 | 266.0 | 7.0 | 4.1 | |
| C4 NEW CAR REGISTRATIONS | | | | | | | | |
| *Unadjusted* | NUMBER | 10,476 | Nov | 12,543 | 14,244 | -16.5 | -26.5 | 15,429 |
| *Seasonally Adjusted* | | 11,333 | | 10,538 | 15,407 | 7.5 | -26.4 | |
| C5 ELECTRIC POWER SALES | | | | | | | | |
| *Unadjusted* | MIL. KWH | 1704.2 | Sep | 1839.7 | 1666.3 | -7.4 | 2.3 | 1699.0 |
| *Seasonally Adjusted* | | 1721.4 | | 1755.4 | 1682.8 | -1.9 | 2.3 | |

P = Preliminary

# A WISCONSIN ECONOMIC INDICATORS

| INDICATOR | UNIT | MONTHLY SERIES Latest Month | Mo/Ago | Yr/Ago | % CHANGE Mo/Ago | % CHANGE Yr/Ago | AVG. 1980 |
|---|---|---|---|---|---|---|---|
| **C6 TOTAL SECURITY REGISTRATIONS** | | | | | | | |
| *Unadjusted* | MIL. DOL. | 67.4 Nov | 49.0 | 21.6 | 37.6 | 212.0 | 39.2 |
| *Seasonally Adjusted* | | 97.7 | 46.9 | 31.3 | 108.3 | 212.1 | |
| **C7 PERSONAL INCOME** | | | | | | | |
| *Unadjusted* | MIL. DOL. | 4,075 Aug | 4,107 | 3,682 | -0.8 | 10.7 | 3,712 |
| *Seasonally Adjusted* | | 4,091 | 4,148 | 3,697 | -1.4 | 10.7 | |
| **C8 AVG. WEEKLY EARNINGS, MFG.** | | | | | | | |
| *Unadjusted* | DOLLARS | 366.34P Nov | 358.32 | 343.75 | 2.2 | 6.6 | 323.21 |
| *Seasonally Adjusted* | | 359.86P | 355.83 | 337.82 | 1.1 | 6.5 | |
| **C9 CASH RECEIPTS FROM FARM MKTG.** | | | | | | | |
| *Unadjusted* | MIL. DOL. | 421.8 Oct | 395.0 | 411.4 | 6.8 | 2.5 | 377.6 |
| *Seasonally Adjusted* | | 424.3 | 400.6 | 413.9 | 5.9 | 2.5 | |
| **C10 CONTRACT CONSTRUCTION EMPL.** | | | | | | | |
| *Unadjusted* | THOUS | 67.6P Nov | 70.8 | 74.3 | -4.5 | -9.0 | 71.2 |
| *Seasonally Adjusted* | | 63.8P | 64.1 | 70.1 | -0.5 | -9.0 | |
| *OTHER KEY INDICATORS* | | | | | | | |
| **X1 BIRTH REGISTRATIONS** | | | | | | | |
| *Unadjusted* | NUMBER | 5,824 Oct | 6,300 | 5,966 | -7.6 | -2.4 | 6,123 |
| *Seasonally Adjusted* | | 5,649 | 5,502 | 5,788 | 2.7 | -2.4 | |
| **X2 DEATH REGISTRATIONS** | | | | | | | |
| *Unadjusted* | NUMBER | 3,290 Oct | 3,355 | 3,251 | -1.9 | 1.2 | 3,395 |
| *Seasonally Adjusted* | | 3,350 | 3,315 | 3,310 | 1.1 | 1.2 | |
| **X3 NATURAL NET GAIN POPULATION** | | | | | | | |
| *Unadjusted* | NUMBER | 2,534 Oct | 2,945 | 2,715 | -14.0 | -6.7 | 2,728 |
| *Seasonally Adjusted* | | 2,327 | 2,208 | 2,492 | 5.4 | -6.6 | |
| **X4 MARRIAGE REGISTRATIONS** | | | | | | | |
| *Unadjusted* | NUMBER | 3,214 Oct | 4,607 | 3,404 | -30.2 | -5.6 | 3,403 |
| *Seasonally Adjusted* | | 3,081 | 3,413 (Sep) | 3,264 | -9.7 | -5.6 | |
| **X5 CONSUMER PRICE INDEX (MILW.)** | | | | | | | |
| *Unadjusted* | INDEX | 287.5 Nov | 286.9 | 262.1 | 0.2 | 9.7 | 251.5 |
| **X6 PRICES RECEIVED BY FARMERS** | | | | | | | |
| *Unadjusted* | INDEX | 284 Nov | 283 | 289 | 0.4 | -1.7 | 270 |
| *Seasonally Adjusted* | | 283 | 282 | 288 | 0.4 | -1.7 | |
| **X7 NET GAIN IN RESIDENTIAL PHONES (PRIMARY)** | | | | | | | |
| *Unadjusted* | NUMBER | -906 Nov | -187 | 2,272 | -484.5 | -139.9 | 1,880 |
| *Seasonally Adjusted* | | -1,279 | -900 | 1,899 | -142.1 | -167.4 | |
| **X8 TOTAL JOB OPENINGS REC.** | | | | | | | |
| *Unadjusted* | NUMBER | 12,476 Nov | 7,248 | 6,397 | 72.1 | 95.0 | 9,760 |
| *Seasonally Adjusted* | | 15,233 | 6,929 | 7,810 | 119.8 | 95.0 | |
| **X9 JOB VACANCIES, MFG.** | | | | | | | |
| *Unadjusted* | NUMBER | 1,378 Oct | 1,468 | 1,710 | -6.1 | -19.0 | 2,057 |
| *Seasonally Adjusted* | | 1,419 | 1,395 | 1,752 | 1.7 | -19.0 | |
| **X10 MANUFACTURING EMPL.** | | | | | | | |
| *Unadjusted* | THOUS | 541.1P Nov | 544.1 | 552.8 | -0.6 | -2.1 | 561.9 |
| *Seasonally Adjusted* | | 538.9P | 539.8 | 550.8 | -0.2 | -2.2 | |

P = Preliminary

Section

# B

# LABOR FORCE ESTIMATES

| WISCONSIN LABOR FORCE ESTIMATES<br>NOVEMBER | (In Thousands) | | | Pct. Chg. | |
|---|---|---|---|---|---|
| | Latest Month | Month Ago | Year Ago | Month Ago | Year Ago |
| *Unadjusted* | | | | | |
| **CIVILIAN LABOR FORCE** | 2434.8 | 2448.3 | 2394.1 | -0.6 | 1.7 |
| Employment (Inc. Labor Disputes) | 2241.4 | 2262.5 | 2239.1 | -0.9 | 0.1 |
| Unemployment | 193.4 | 185.8 | 155.0 | 4.1 | 24.8 |
| Unemployment Rate | 7.9 | 7.6 | 6.5 | - | - |
| *Seasonally Adjusted* | | | | | |
| **CIVILIAN LABOR FORCE** | 2425.7 | 2434.5 | 2394.4 | -0.4 | 1.3 |
| Employment (Inc. Labor Disputes) | 2231.4 | 2234.4 | 2228.9 | -0.1 | 0.1 |
| Unemployment | 194.3 | 200.1 | 165.5 | -2.9 | 17.4 |
| Unemployment Rate | 8.0 | 8.2 | 6.9 | - | - |

| WISCONSIN EMPLOYMENT ESTIMATES<br>NOVEMBER | (In Thousands) | | | Pct. Chg. | |
|---|---|---|---|---|---|
| | Latest Month | Month Ago | Year Ago | Month Ago | Year Ago |
| **TOTAL NONFARM WAGE AND SALARY WORKERS** | 1961.6 | 1969.3 | 1965.8 | -0.4 | -0.2 |
| *Unadjusted* | | | | | |
| Manufacturing | 540.4 | 544.0 | 552.6 | -0.7 | -2.2 |
| Mining | 2.2 | 2.3 | 2.7 | -4.3 | -18.5 |
| Contract Construction | 67.6 | 70.8 | 74.3 | -4.5 | -9.0 |
| Transportation and Public Utilities | 92.1 | 92.9 | 93.9 | -0.9 | -1.9 |
| Elec., Gas and Sanitary Services | 17.0 | 17.0 | 16.7 | 0.0 | -1.8 |
| Wholesale Trade | 98.8 | 98.8 | 96.1 | 0.0 | 2.8 |
| Retail Trade | 354.7 | 352.9 | 352.2 | 0.5 | 0.7 |
| General Merchandise | 48.9 | 47.1 | 51.8 | 3.8 | -5.6 |
| Finance, Insurance and Real Estate | 96.1 | 96.4 | 94.2 | -0.3 | 2.0 |
| Banking | 27.2 | 27.1 | 26.5 | 0.4 | 2.6 |
| Insurance | 30.7 | 30.6 | 30.7 | 0.3 | 0.0 |
| Service and Miscellaneous | 383.5 | 386.3 | 370.6 | -0.7 | 3.5 |
| Hospitals | 74.5 | 74.3 | 72.8 | 0.3 | 2.3 |
| Private Education | 24.1 | 24.0 | 23.3 | 0.4 | 3.4 |
| Government | 326.1 | 324.9 | 329.2 | 0.4 | -0.9 |
| State Government | 81.7 | 83.3 | 82.6 | -1.9 | -1.1 |
| Local Government | 216.8 | 214.0 | 218.8 | 1.3 | -0.9 |

| UNITED STATES LABOR FORCE ESTIMATES<br>NOVEMBER | (In Thousands) | | | Pct. Chg. | |
|---|---|---|---|---|---|
| | Latest Month | Month Ago | Year Ago | Month Ago | Year Ago |
| *Seasonally Adjusted* | | | | | |
| **CIVILIAN LABOR FORCE** | 107,029 | 106,736 | 105,285 | 0.3 | 1.7 |
| Employment | 98,025 | 98,217 | 97,339 | -0.2 | 0.7 |
| Unemployment | 9,004 | 8,520 | 7,946 | 5.7 | 13.3 |
| Unemployment Rate | 8.4 | 8.0 | 7.5 | - | - |

Section

# C SUMMARY OF WISCONSIN JOB OPENINGS

| JOB OPENINGS *(Unadjusted)* OCTOBER | Number of Job Openings | | | Job Openings Rates (Openings Per 100 Jobs) | | |
|---|---|---|---|---|---|---|
| | Latest Month | Month Ago | Year Ago | Latest Month | Month Ago | Year Ago |
| **ALL NONFARM INDUSTRIES** | 12,433 | 13,320 | 14,247 | 0.6 | 0.7 | 0.7 |
| Manufacturing (Excluding Canning) | 1,378 | 1,417 | 1,695 | 0.3 | 0.3 | 0.3 |
| Manufacturing (Including Canning) | 1,378 | 1,468 | 1,701 | 0.3 | 0.3 | 0.3 |
| Durable Goods | 1,065 | 1,084 | 1,193 | 0.3 | 0.3 | 0.3 |
| Lumber and Wood Products (Except Furniture) | 3 | 3 | 7 | * | * | * |
| Furniture and Fixtures | 5 | 5 | 9 | 0.1 | 0.1 | 0.1 |
| Stone, Clay and Glass Products | 0 | 2 | 9 | * | * | 0.1 |
| Primary Metal Industries | 18 | 27 | 49 | 0.1 | 0.1 | 0.2 |
| Fabricated Metal Products | 150 | 169 | 248 | 0.3 | 0.3 | 0.4 |
| Machinery (Excluding Electrical) | 430 | 397 | 365 | 0.4 | 0.3 | 0.3 |
| Electrical Machinery, Equipment and Supplies | 246 | 266 | 225 | 0.4 | 0.5 | 0.4 |
| Transportation Equipment | 74 | 54 | 114 | 0.3 | 0.1 | 0.3 |
| Instruments and Related Products | 115 | 123 | 96 | 0.9 | 1.0 | 0.8 |
| Nondurable Goods | 313 | 384 | 508 | 0.2 | 0.2 | 0.3 |
| Food and Kindred Products | 84 | 152 | 286 | 0.1 | 0.2 | 0.4 |
| Textile Mill Products | 7 | 5 | 5 | 0.2 | 0.1 | 0.1 |
| Apparel and Other Finished Products | 86 | 93 | 70 | 1.4 | 1.4 | 1.2 |
| Paper and Allied Products | 63 | 55 | 40 | 0.1 | 0.1 | 0.1 |
| Printing, Publishing and Allied Products | 18 | 12 | 21 | 0.1 | * | 0.1 |
| Chemicals and Allied Products | 48 | 56 | 77 | 0.5 | 0.6 | 0.8 |
| Rubber and Misc. Plastics Products | 4 | 11 | 7 | * | 0.1 | * |
| Leather and Leather Products | 3 | 0 | 2 | * | * | * |
| All Nonmanufacturing Industries | 11,055 | 11,852 | 12,546 | 0.8 | 0.8 | 0.9 |
| Transportation, Communication and Public Utilities | 169 | 235 | 223 | 0.2 | 0.3 | 0.2 |
| Trade | 1,712 | 2,436 | 2,172 | 0.4 | 0.5 | 0.4 |
| Finance, Insurance and Real Estate | 621 | 658 | 731 | 0.6 | 0.7 | 0.8 |
| Service (Including Hospitals) | 2,542 | 3,115 | 4,429 | 0.7 | 0.8 | 1.2 |
| Hospitals | 896 | 904 | 1,147 | 1.2 | 1.2 | 1.6 |
| Government | 5,674 | 5,290 | 4,714 | 1.7 | 1.7 | 1.5 |

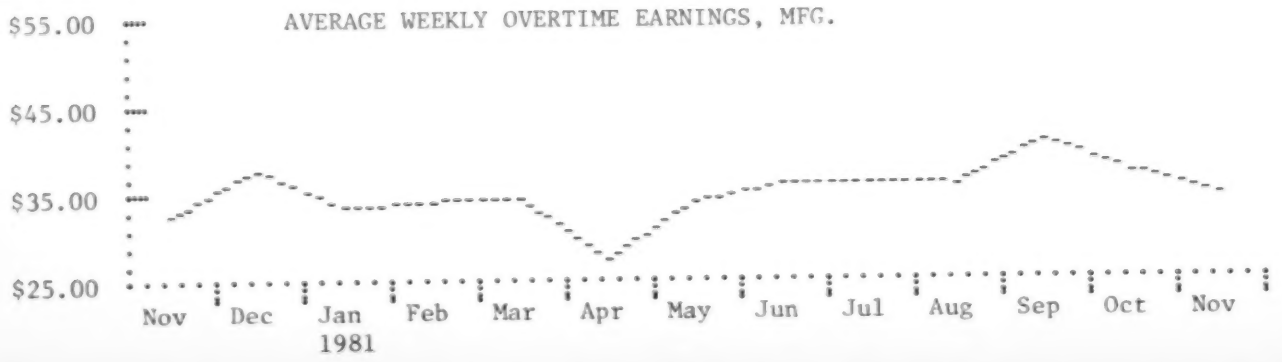
* Rate Less Than 0.05.

| MANUFACTURING EMPLOYMENT *(Unadjusted)* NOVEMBER | (In Thousands) | | |
|---|---|---|---|
| | Latest Month | Month Ago | Year Ago |
| All Manufacturing (Including Canning) | 540.4 | 544.0 | 552.6 |
| All Manufacturing (Excluding Canning) | 530.8 | 530.8 | 543.9 |
| Durable Goods | 351.1 | 350.1 | 360.4 |
| Lumber and Wood Prod., (Except Furniture) | 19.8 | 20.3 | 20.8 |
| Sawmills and Planning Mills | 2.8 | 2.9 | 2.9 |
| Millwork, Veneer, Plywood & Prefab. Wood Prod. | 9.1 | 9.5 | 9.3 |
| Furniture and Fixtures | 9.0 | 9.2 | 8.9 |
| Household Furniture | 4.1 | 4.1 | 3.8 |
| Stone, Clay and Glass Products | 8.8 | 8.9 | 9.8 |
| Concrete, Gypsum and Plaster Products | 4.5 | 4.5 | 5.4 |
| Primary Metal Industries | 26.1 | 26.3 | 25.5 |
| Iron and Steel Foundries | 16.1 | 16.2 | 15.5 |
| Fabricated Metal Products | 55.4 | 56.1 | 56.7 |
| Heating Equipment (Except Electrical) & Plumbing Fixtures | 5.6 | 5.7 | 5.7 |
| Fabricated Structural Metal Products | 13.7 | 13.8 | 14.1 |
| Metal Stampings | 15.8 | 16.2 | 16.3 |
| Machinery (Except Electrical) | 120.9 | 121.3 | 121.7 |
| Engines and Turbines | 23.5 | 23.0 | 22.3 |
| Farm Machinery and Equipment | 17.8 | 18.0 | 18.2 |
| Const., Min. & Material Handling Mach. & Equip. | 18.4 | 18.5 | 19.8 |
| Metalworking Machinery and Equipment | 12.7 | 12.8 | 12.4 |
| Special Industry Machinery (Except Metalworking) | 12.0 | 12.3 | 12.9 |
| General Industrial Machinery and Equipment | 16.9 | 17.1 | 17.1 |
| Service Industry Machines | 8.3 | 8.3 | 8.0 |
| Electrical Machinery, Equipment and Supplies | 54.0 | 54.8 | 55.1 |
| Electrical Industrial Apparatus | 20.4 | 20.5 | 20.5 |
| Household Appliances | 7.0 | 7.6 | 7.9 |
| Transportation Equipment | 33.2 | 29.3 | 38.5 |
| Motor Vehicles and Equipment | 24.5 | 20.6 | 30.0 |
| Instruments and Related Products | 12.2 | 12.3 | 12.2 |
| Miscellaneous Manufacturing | 11.5 | 11.6 | 11.0 |
| Nondurable Goods | 189.4 | 193.9 | 192.3 |
| Food and Kindred Products | 63.2 | 66.8 | 64.3 |
| Meat Products | 13.7 | 13.5 | 13.4 |
| Dairy Products | 16.4 | 16.4 | 17.0 |
| Canning and Preserving | 9.6 | 13.3 | 8.7 |
| Bakery Products | 4.5 | 4.5 | 5.1 |
| Beverage Industries | 11.6 | 11.7 | 12.8 |
| Textile Mill Products | 4.1 | 4.3 | 4.5 |
| Knitting Mills | 3.4 | 3.5 | 3.5 |
| Apparel and Other Finished Products | 6.3 | 6.2 | 6.4 |
| Paper and Allied Products | 48.0 | 48.2 | 47.6 |
| Pulp and Paper Mills | 30.5 | 30.6 | 30.1 |
| Converted Paper and Paperboard Products | 9.2 | 9.2 | 9.0 |
| Paperboard Containers and Boxes | 7.0 | 7.2 | 7.2 |
| Printing, Publishing and Allied Industries | 31.4 | 31.5 | 32.1 |
| Newspapers | 10.8 | 10.7 | 10.9 |
| Commercial Printing | 12.0 | 12.1 | 12.2 |
| Chemicals and Allied Products | 9.7 | 9.7 | 9.7 |
| Rubber and Misc. Plastics Products | 17.3 | 17.5 | 18.0 |
| Miscellaneous Plastics Products | 13.3 | 13.4 | 13.4 |
| Leather and Leather Products | 9.1 | 9.3 | 9.4 |
| Leather Tanning and Finishing | 2.7 | 2.8 | 2.8 |
| Footwear (Except Rubber) | 4.5 | 4.5 | 4.7 |
| Other Nondurable Goods | 0.4 | 0.4 | 0.4 |

Section

# C WISCONSIN EARNINGS AND HOURS DATA

| EARNINGS AND HOURS *(Unadjusted)* NOVEMBER | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings Including O.T. | | | Average Hourly Earnings Excluding O.T. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Latest Month | Mo. Ago | Yr. Ago | Latest Month | Mo. Ago | Yr. Ago | Latest Month | Mo. Ago | Yr. Ago | Latest Month | Mo. Ago |
| All Manufacturing (Incl. Canning) | $366 | $358 | $344 | 40.3 | 39.9 | 40.7 | $9.09 | $8.98 | $8.44 | $8.82 | $8.67 |
| All Manufacturing (Excl. Canning) | 369 | 363 | 346 | 40.3 | 40.1 | 40.8 | 9.16 | 9.07 | 8.48 | 8.88 | 8.75 |
| Durable Goods | 374 | 366 | 351 | 40.1 | 39.7 | 40.6 | 9.31 | 9.20 | 8.63 | 9.09 | 8.93 |
| Lumber/Wood Prod. (Exc. Furn.) | 251 | 250 | 249 | 38.0 | 37.9 | 40.4 | 6.60 | 6.60 | 6.17 | 6.46 | 6.43 |
| Furniture and Fixtures | 269 | 265 | 247 | 39.9 | 39.7 | 40.1 | 6.74 | 6.67 | 6.15 | - | - |
| Stone, Clay and Glass Products | 346 | 346 | 335 | 41.1 | 41.3 | 43.0 | 8.41 | 8.38 | 7.79 | 8.21 | 8.15 |
| Primary Metal Industries | 369 | 362 | 346 | 39.9 | 39.6 | 40.3 | 9.26 | 9.15 | 8.58 | 9.00 | 8.88 |
| Iron and Steel Foundries | 360 | 362 | 338 | 39.7 | 40.0 | 40.0 | 9.07 | 9.06 | 8.44 | 8.80 | 8.78 |
| Fabricated Metal Products | 368 | 359 | 342 | 40.2 | 39.7 | 40.8 | 9.16 | 9.06 | 8.38 | 8.81 | 8.73 |
| Fab. Structural Metal Prod. | 359 | 350 | 332 | 41.7 | 40.8 | 42.5 | 8.61 | 8.58 | 7.81 | 8.33 | 8.29 |
| Metal Stampings | 383 | 368 | 336 | 39.3 | 38.7 | 38.7 | 9.76 | 9.52 | 8.69 | 9.50 | 9.32 |
| Machinery (Except Electrical) | 422 | 416 | 386 | 40.8 | 40.4 | 40.6 | 10.34 | 10.29 | 9.50 | 10.14 | 10.07 |
| Engines and Turbines | 454 | 446 | 399 | 40.7 | 40.3 | 39.4 | 11.17 | 11.05 | 10.13 | 10.94 | 10.80 |
| Farm Machinery and Equip. | 455 | 451 | 414 | 41.3 | 41.2 | 41.2 | 11.01 | 10.94 | 10.07 | 10.83 | 10.71 |
| Const. and Related Mach. | 426 | 424 | 407 | 39.9 | 39.7 | 41.1 | 10.66 | 10.66 | 9.91 | 10.49 | 10.45 |
| Metalworking Mach. and Equip. | 413 | 407 | 392 | 40.9 | 40.4 | 41.2 | 10.10 | 10.06 | 9.51 | 9.81 | 9.83 |
| Spec. Ind. Mach. (Exc. Metal) | 409 | 406 | 395 | 41.6 | 41.4 | 43.9 | 9.82 | 9.83 | 8.99 | 9.51 | 9.52 |
| Gen. Industrial Mach. and Equip. | 430 | 424 | 411 | 40.0 | 39.5 | 41.0 | 10.77 | 10.73 | 10.04 | 10.61 | 10.58 |
| Electrical Mach., Equip. and Supp. | 341 | 340 | 317 | 39.9 | 39.9 | 40.0 | 8.55 | 8.54 | 7.94 | 8.35 | 8.33 |
| Electrical Industrial Apparatus | 370 | 370 | 336 | 40.7 | 40.5 | 39.7 | 9.10 | 9.12 | 8.46 | 8.85 | 8.85 |
| Transportation Equipment | 457 | 441 | 445 | 39.7 | 38.6 | 41.2 | 11.53 | 11.42 | 10.81 | 11.29 | 10.74 |
| Instruments and Related Prod. | 298 | 296 | 279 | 39.9 | 39.3 | 41.3 | 7.48 | 7.54 | 6.74 | 7.37 | 7.43 |
| Nondurable Goods | 353 | 345 | 330 | 40.6 | 40.3 | 40.9 | 8.69 | 8.58 | 8.09 | 8.29 | 8.18 |
| Food and Kindred Products | 351 | 332 | 335 | 39.5 | 38.6 | 39.8 | 8.87 | 8.61 | 8.43 | 8.45 | 8.19 |
| Meat Products | 394 | 404 | 384 | 38.6 | 38.8 | 38.5 | 10.20 | 10.39 | 9.99 | 9.82 | 9.99 |
| Dairy Products | 332 | 322 | 312 | 40.1 | 39.7 | 40.7 | 8.27 | 8.11 | 7.67 | 7.91 | 7.79 |
| Textile Mill Products | 238 | 239 | 230 | 38.5 | 38.0 | 38.2 | 6.18 | 6.30 | 6.02 | 5.93 | 6.06 |
| Apparel and Other Fin. Prod. | 188 | 191 | 184 | 36.3 | 36.5 | 37.0 | 5.17 | 5.22 | 4.97 | 5.07 | 5.12 |
| Paper and Allied Products | 423 | 423 | 391 | 44.6 | 44.6 | 44.8 | 9.51 | 9.49 | 8.72 | 9.01 | 8.98 |
| Pulp and Paper Mills | 450 | 452 | 414 | 45.6 | 45.7 | 45.4 | 9.88 | 9.89 | 9.13 | 9.33 | 9.32 |
| Printing, Pub. and Allied Prod. | 382 | 380 | 342 | 39.2 | 39.2 | 38.7 | 9.76 | 9.70 | 8.83 | - | - |
| Chemicals and Allied Products | 377 | 386 | 365 | 39.2 | 40.2 | 41.1 | 9.61 | 9.61 | 8.90 | 9.47 | 9.42 |
| Rubber and Misc. Plastics Prod. | 291 | 282 | 280 | 40.0 | 39.5 | 41.1 | 7.29 | 7.15 | 6.83 | 7.04 | 6.99 |
| Leather and Leather Products | 228 | 234 | 217 | 38.5 | 39.1 | 38.7 | 5.92 | 6.00 | 5.60 | 5.83 | 5.86 |

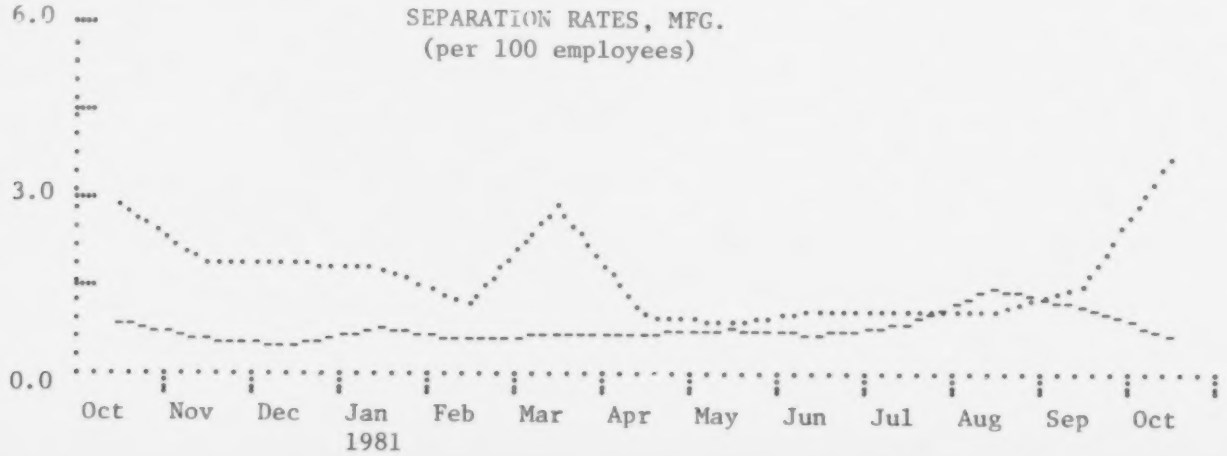


Section

# C WISCONSIN LABOR TURNOVER RATES

| LABOR TURNOVER RATES *(Rates Per 100 Employees)* OCTOBER | SEPARATION RATES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | TOTAL | | | QUITS | | | LAYOFFS | | |
| | Latest Month | Mo. Ago | Yr. Ago | Latest Month | Mo. Ago | Yr. Ago | Latest Month | Mo. Ago | Yr. Ago |
| **ALL NONFARM INDUSTRIES** | 3.8 | 4.6 | 3.7 | 1.4 | 2.2 | 1.8 | 1.8 | 1.5 | 1.4 |
| Manufacturing (Excluding Canning) | 4.5 | 3.0 | 3.2 | 0.6 | 1.0 | 0.7 | 3.1 | 1.3 | 1.7 |
| Manufacturing (Including Canning) | 5.1 | 3.4 | 4.4 | 0.6 | 1.1 | 0.8 | 3.7 | 1.5 | 2.9 |
| Durable Goods | 5.2 | 3.0 | 3.4 | 0.5 | 0.8 | 0.7 | 3.9 | 1.3 | 1.9 |
| Lumber and Wood Products (Except Furniture) | 10.9 | 3.4 | 3.0 | 0.7 | 1.5 | 0.9 | 9.8 | 1.5 | 1.6 |
| Furniture and Fixtures | 3.3 | 3.3 | 4.4 | 0.7 | 1.2 | 1.3 | 2.2 | 1.4 | 2.5 |
| Stone, Clay and Glass Products | 4.2 | 2.7 | 2.4 | 0.4 | 0.8 | 0.7 | 3.3 | 1.5 | 0.7 |
| Primary Metal Industries | 5.9 | 4.5 | 3.1 | 0.5 | 0.9 | 0.6 | 4.9 | 3.1 | 1.9 |
| Fabricated Metal Products | 4.5 | 2.7 | 4.0 | 0.5 | 0.9 | 0.9 | 3.2 | 1.1 | 2.4 |
| Machinery (Except Electrical) | 2.4 | 2.1 | 2.3 | 0.4 | 0.5 | 0.3 | 1.3 | 0.8 | 1.2 |
| Electrical Machinery, Equipment and Supplies | 3.9 | 2.7 | 2.5 | 0.5 | 1.1 | 1.0 | 2.8 | 1.0 | 1.0 |
| Transportation Equipment | 19.3 | 5.3 | 8.0 | 0.2 | 0.3 | 0.3 | 15.6 | 2.6 | 5.5 |
| Instruments and Related Products | 1.4 | 1.9 | 1.8 | 0.5 | 1.5 | 1.0 | 0.4 | 0.1 | 0.5 |
| Nondurable Goods | 4.9 | 4.1 | 6.4 | 0.9 | 1.7 | 1.1 | 3.3 | 1.8 | 4.8 |
| Food and Kindred Products | 8.6 | 6.1 | 13.7 | 1.0 | 2.3 | 1.6 | 7.0 | 3.0 | 11.4 |
| Textile Mill Products | 9.9 | 9.5 | 16.3 | 1.3 | 1.8 | 1.5 | 8.0 | 7.1 | 14.3 |
| Apparel and Other Finished Products | 5.4 | 5.7 | 3.4 | 2.1 | 3.2 | 1.5 | 2.3 | 1.2 | 1.4 |
| Paper and Allied Products | 2.2 | 2.2 | 1.8 | 0.6 | 1.2 | 0.3 | 1.2 | 0.7 | 1.1 |
| Printing, Publishing and Allied Products | 2.5 | 2.2 | 2.2 | 1.2 | 1.5 | 1.4 | 0.6 | 0.3 | 0.6 |
| Chemicals and Allied Products | 1.2 | 2.6 | 1.0 | 0.8 | 2.0 | 0.5 | 0.1 | 0.4 | 0.2 |
| Rubber and Misc. Plastics Products | 2.6 | 3.2 | 1.9 | 0.5 | 0.6 | 0.5 | 1.5 | 2.1 | 0.8 |
| Leather and Leather Products | 5.9 | 3.7 | 3.4 | 1.3 | 1.5 | 1.6 | 2.9 | 1.3 | 1.0 |
| All Nonmanufacturing Industries | 3.3 | 5.0 | 3.4 | 1.7 | 2.6 | 2.2 | 1.1 | 1.6 | 0.8 |
| Transportation, Communication and Public Utilities | 3.5 | 10.7 | 2.2 | 0.7 | 1.5 | 1.0 | 2.4 | 8.7 | 0.9 |
| Trade | 4.3 | 4.8 | 3.8 | 2.2 | 3.0 | 2.9 | 1.5 | 1.0 | 0.3 |
| Finance, Insurance and Real Estate | 1.4 | 2.2 | 2.1 | 1.0 | 1.7 | 1.7 | * | 0.1 | * |
| Service (Including Hospitals) | 3.2 | 5.2 | 3.8 | 2.2 | 3.3 | 2.6 | 0.3 | 0.6 | 0.6 |
| Government | 1.9 | 4.1 | 2.3 | 1.0 | 2.2 | 1.4 | 0.5 | 1.1 | 0.6 |

* Rate Less Than 0.05.

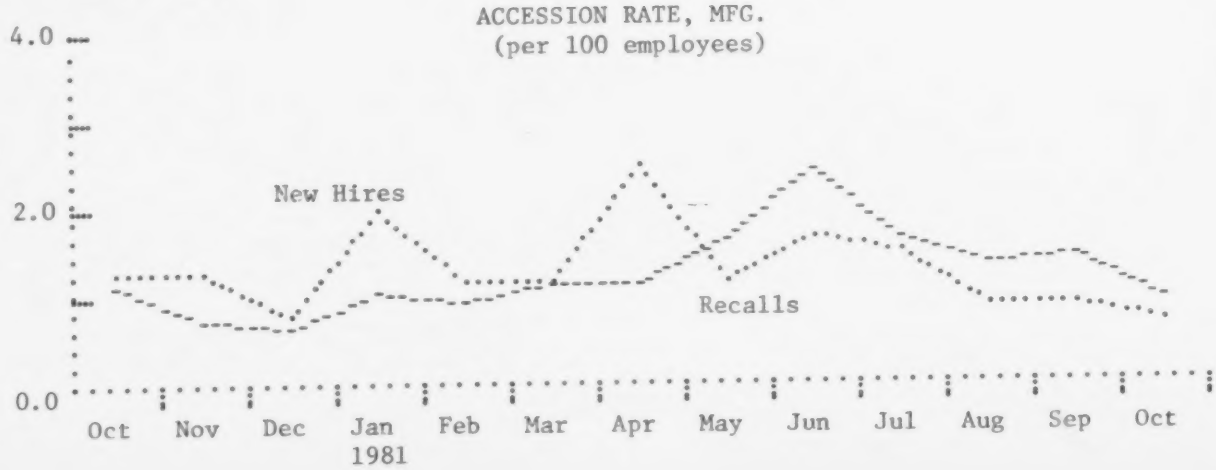


Section

# C WISCONSIN LABOR TURNOVER RATES

| LABOR TURNOVER RATES *(Rates Per 100 Employees)* OCTOBER | ACCESSION RATES | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | TOTAL | | | NEW HIRES | | | RECALLS | | |
| | Latest Month | Mo. Ago | Yr. Ago | Latest Month | Mo. Ago | Yr. Ago | Latest Month | Mo. Ago | Yr. Ago |
| **ALL NONFARM INDUSTRIES** | 3.3 | 4.9 | 3.7 | 2.3 | 3.0 | 2.7 | 0.7 | 1.8 | 0.8 |
| Manufacturing (Excluding Canning) | 2.0 | 2.5 | 2.6 | 0.9 | 1.2 | 1.0 | 0.7 | 0.9 | 1.3 |
| Manufacturing (Including Canning) | 2.0 | 2.6 | 2.7 | 0.9 | 1.4 | 1.1 | 0.7 | 0.9 | 1.3 |
| Durable Goods | 2.1 | 2.5 | 2.9 | 0.8 | 1.1 | 0.9 | 0.8 | 0.9 | 1.6 |
| Lumber and Wood Products (Except Furniture) | 0.8 | 1.4 | 2.1 | 0.5 | 1.0 | 1.2 | 0.3 | 0.4 | 0.8 |
| Furniture and Fixtures | 1.3 | 2.9 | 1.6 | 1.0 | 1.9 | 0.6 | 0.2 | 0.9 | 0.9 |
| Stone, Clay and Glass Products | 1.6 | 1.5 | 2.1 | 0.4 | 0.6 | 1.1 | 0.4 | 0.9 | 0.9 |
| Primary Metal Industries | 1.6 | 2.0 | 2.2 | 0.9 | 1.4 | 1.0 | 0.6 | 0.6 | 1.1 |
| Fabricated Metal Products | 1.7 | 1.8 | 2.2 | 1.1 | 1.0 | 1.2 | 0.4 | 0.5 | 0.8 |
| Machinery (Except Electrical) | 1.9 | 2.9 | 2.2 | 0.4 | 0.9 | 0.5 | 0.9 | 1.4 | 1.2 |
| Electrical Machinery, Equipment and Supplies | 2.1 | 1.8 | 2.2 | 1.1 | 1.3 | 1.1 | 0.7 | 0.2 | 0.9 |
| Transportation Equipment | 5.3 | 4.2 | 8.7 | 0.5 | 0.4 | 0.6 | 1.9 | 2.1 | 6.5 |
| Instruments and Related Products | 1.5 | 1.5 | 1.7 | 1.2 | 1.2 | 1.2 | 0.2 | 0.2 | 0.4 |
| Nondurable Goods | 1.9 | 2.8 | 2.3 | 1.1 | 1.9 | 1.4 | 0.6 | 0.8 | 0.7 |
| Food and Kindred Products | 1.7 | 3.6 | 2.7 | 1.1 | 2.5 | 1.9 | 0.5 | 1.0 | 0.6 |
| Textile Mill Products | 4.6 | 5.8 | 5.8 | 0.6 | 0.7 | 0.7 | 4.0 | 5.1 | 5.0 |
| Apparel and Other Finished Products | 4.8 | 6.3 | 3.9 | 3.6 | 5.9 | 2.8 | 1.1 | 0.4 | 1.0 |
| Paper and Allied Products | 1.3 | 1.6 | 1.7 | 0.7 | 1.0 | 0.7 | 0.5 | 0.5 | 0.9 |
| Printing, Publishing and Allied Products | 2.3 | 2.8 | 2.3 | 1.8 | 2.0 | 1.8 | 0.5 | 0.6 | 0.5 |
| Chemicals and Allied Products | 0.4 | 1.0 | 0.8 | 0.3 | 0.9 | 0.4 | 0.1 | 0.1 | 0.3 |
| Rubber and Misc. Plastics Products | 2.1 | 1.7 | 1.5 | 0.6 | 0.7 | 0.9 | 1.1 | 0.9 | 0.3 |
| Leather and Leather Products | 3.1 | 3.1 | 2.7 | 2.0 | 2.2 | 2.1 | 0.7 | 0.5 | 0.3 |
| All Nonmanufacturing Industries | 3.8 | 5.9 | 4.0 | 2.8 | 3.6 | 3.3 | 0.7 | 2.1 | 0.6 |
| Transportation, Communication and Public Utilities | 1.7 | 3.8 | 1.9 | 1.2 | 1.5 | 1.0 | 0.4 | 2.1 | 0.8 |
| Trade | 5.5 | 10.7 | 5.7 | 4.2 | 5.7 | 4.9 | 1.2 | 4.9 | 0.7 |
| Finance, Insurance and Real Estate | 1.8 | 2.0 | 1.8 | 1.6 | 1.7 | 1.7 | * | 0.2 | * |
| Service (Including Hospitals) | 3.4 | 4.7 | 4.2 | 3.0 | 4.1 | 3.5 | 0.3 | 0.4 | 0.3 |
| Government | 1.9 | 2.0 | 1.7 | 1.0 | 1.2 | 1.2 | 0.4 | 0.5 | 0.4 |

* Rate Less Than 0.05.



Section

# C SUMMARY OF RECENT WISCONSIN DATA

| EARNINGS AND HOURS, MFG. Production Workers (Unadjusted) NOVEMBER | Average Weekly Earnings | | | Average Weekly Hours | | | Average Hourly Earnings Including O.T. | | | Average Hourly Earnings Excluding O.T. | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| | Latest Month | Month Ago | Year Ago | Latest Month | Month Ago | Year Ago | Latest Month | Month Ago | Year Ago | Latest Month | Month Ago |
| United States | $325 | $322 | $306 | 39.7 | 39.6 | 40.2 | 8.18 | 8.14 | 7.60 | - | - |
| Wisconsin | 366 | 358 | 344 | 40.3 | 39.9 | 40.7 | 9.09 | 8.98 | 8.44 | 8.82 | 8.67 |
| *Selected Areas* | | | | | | | | | | | |
| Appleton-Oshkosh (Calumet-Winnebago-Outagamie) | 357 | 355 | 336 | 41.4 | 41.3 | 41.8 | 8.63 | 8.60 | 8.04 | 8.29 | 8.24 |
| Beloit (City) | 346 | 351 | 358 | 40.5 | 41.2 | 45.5 | 8.55 | 8.53 | 7.87 | - | - |
| Eau Claire (Eau Claire-Chippewa) | 358 | 351 | 348 | 41.1 | 40.9 | 42.8 | 8.72 | 8.58 | 8.13 | 8.63 | 8.50 |
| Fond du Lac (City) | 371 | 340 | 317 | 43.9 | 41.1 | 39.9 | 8.45 | 8.27 | 7.93 | 8.19 | 8.04 |
| Green Bay (Brown County) | 379 | 370 | 348 | 41.3 | 40.9 | 41.4 | 9.18 | 9.04 | 8.41 | 8.62 | 8.51 |
| Janesville (City) | 436 | 437 | 456 | 40.1 | 39.6 | 41.1 | 10.86 | 11.03 | 11.09 | 10.49 | 10.55 |
| Kenosha (County) | 410 | 363 | 396 | 38.8 | 37.8 | 40.1 | 10.57 | 9.59 | 9.87 | 10.32 | 8.25 |
| La Crosse (County) | 326 | 316 | 296 | 40.1 | 39.6 | 40.3 | 8.14 | 7.97 | 7.35 | 7.80 | 7.65 |
| Madison (Dane County) | 336 | 342 | 335 | 37.9 | 39.6 | 39.0 | 8.86 | 8.64 | 8.59 | 8.64 | 8.32 |
| Manitowoc (City) | 286 | 287 | 283 | 39.0 | 38.9 | 40.4 | 7.33 | 7.37 | 7.02 | 7.19 | 7.20 |
| Milwaukee (Milwaukee-Ozaukee-Waukesha-Washington) | 405 | 396 | 378 | 40.3 | 39.6 | 40.8 | 10.05 | 9.99 | 9.25 | 9.78 | 9.72 |
| Racine (County) | 393 | 390 | 358 | 40.2 | 40.1 | 40.2 | 9.80 | 9.73 | 8.90 | 9.55 | 9.47 |
| Sheboygan (County) | 340 | 333 | 312 | 38.2 | 38.1 | 38.9 | 8.89 | 8.73 | 8.03 | 8.63 | 8.48 |
| Wausau (Marathon County) | 385 | 381 | 359 | 43.0 | 42.8 | 43.5 | 8.95 | 8.90 | 8.26 | 8.64 | 8.59 |

| EMPLOYMENT, MFG. (Unadjusted) NOVEMBER | (In Thousands) | | | Percent Change | |
|---|---|---|---|---|---|
| | Latest Month | Month Ago | Year Ago | Month Ago | Year Ago |
| United States | 13,935.0 | 14,138.0 | 14,190.0 | -1.4 | -1.8 |
| Wisconsin | 540.4 | 544.0 | 552.6 | -0.7 | -2.2 |
| *Selected Areas* | | | | | |
| Appleton-Oshkosh (Calumet-Winnebago-Outagamie) | 46.7 | 47.3 | 46.1 | -1.3 | 1.3 |
| Beloit (City) | 7.2 | 7.3 | 6.9 | -1.4 | 4.3 |
| Eau Claire (Eau Claire-Chippewa) | 8.6 | 8.6 | 8.9 | 0.0 | -3.4 |
| Fond du Lac (City) | 10.3 | 10.6 | 9.3 | -2.8 | 10.8 |
| Green Bay (Brown County) | 21.4 | 22.1 | 21.9 | -3.2 | -2.3 |
| Janesville (City) | 7.9 | 8.4 | 11.7 | -6.0 | -32.5 |
| Kenosha (County) | 16.5 | 11.8 | 18.8 | -1.8 | -12.2 |
| La Crosse (County) | 10.8 | 10.9 | 10.9 | -0.9 | -0.9 |
| Madison (Dane County) | 20.6 | 20.8 | 20.2 | -1.0 | 2.0 |
| Manitowoc (City) | 14.4 | 14.9 | 14.5 | -3.4 | -0.7 |
| Milwaukee (Milwaukee-Ozaukee-Waukesha-Washington) | 194.8 | 196.4 | 202.5 | -0.8 | -3.8 |
| Racine (County) | 28.5 | 28.9 | 29.1 | -1.4 | -2.1 |
| Sheboygan (County) | 17.7 | 18.1 | 18.2 | -2.2 | -2.7 |
| Wausau (Marathon County) | 11.2 | 11.4 | 11.6 | -1.8 | -3.4 |

# APPROACHES TO PROJECTING THE ECONOMY

by Gerald Snow

"The matrix of occupations within an industry was a useful device in setting up our tool and die plant in your state."

"I sure like the Standard Industrial Classification (SIC) system. It is universal."

"I'm still having some difficulty with the occupational classification system (SOC). I still don't think they have everything in it."

"Our industrial planning department uses your data as an adjunct to our projections."

These comments are among those we have received in our Labor Market Information Section, and for that reason we felt that a short explanation of the planning bases and tools used would be a helpful preliminary discussion to the industrial-occupational projections for 1990 which will be published later in the year.

The chart on page 13 is a diagram used for instruction of educators and counselors that took place throughout the summer of 1981. Short item definitions follow:

1. The Unemployment Compensation (U.C.) Master File is composed of the records of all employers covered by the U.C. Law.

2. Daily File Maintenance is performed including the SIC, location (LOC) and ownership (OWN) codes of incoming and outgoing firms.

3. The U.C. Quarterly Report contains employer information on employment, wages and contributions.

4. Occupational Employment Statistics (OES) sample surveys are done on most industries on a three year cycle to determine occupational profiles.

5. The ES-202 (Employment, Wages and Contributions) report contains industrial data drawn from the U.C. Quarterly Reports and submitted to Washington as an economic barometer. (This is universe data reported with a five month lag.)

6. The BLS-790 (Employment and Wages) report samples employers to determine current employer statistics which are released with a one month lag and are benchmarked (compared) to the ES-202.

7. The Matrix is the gridwork quilt with industries across the top and occupations down the side. (Construction-Bricklayer)

8. The Projections which are both industrial and occupational are our final product.

9. The Total Employment and Local Area Unemployment Statistics (LAUS) data add employers that are not covered by U.C. to the BLS-790 employment, to get total employment. The number and rate of unemployment is then determined for the state and areas.

10. The U.C. Claims entered at the Job Service offices and estimates of those who do not enter claims are added to determine the number of those unemployed.

11. The Annual Planning Information Report (APIR) gives the history of labor market activity plus a narrative analysis of factors affecting the local labor market.

12. The Local Office Surveys supplement the state BLS-790 sample to determine the employment and unemployment for their local office areas.

The need for accurate and timely projections of future labor market area conditions, for employment planning and

vocational education planning at the local and state levels, has increased dramatically in the last 20 years. This increased need is reflected in the growing public and private policy making groups' awareness that individuals have been having increased difficulties in finding employment in their own communities.

Legislation which sought to solve this problem was the Concentrated Employment and Training Act (CETA) of 1973, the Education Amendments of 1976 and subsequent amendments in 1978. This legislation required that states and areas generate and disseminate projections of future occupational demand.

The technology of developing occupational projections has gone through several stages.

The first technique used was the employer needs survey. Employers were asked to list by occupation their current and expected target year levels of employment. Area occupational employment projections were then developed by aggregating the survey responses by occupational categories and taking into account the sampling frame.

The second technique used to make projections was entitiled the Unfilled Openings Occupational Outlook Handbook approach. This method assembled the unfilled openings collected by the Job Service, aggregated after the manner of the Occupational Outlook Handbooks classification system.

The third technique was the Industry-Occupational Matrix technique developed in the 1960's. This method used occupational surveys to determine industry profile. Then an industry-occupational matrix was developed for a base year. Projections were then made using various mathematical techniques.

AUDIENCE

Purposes of this series of articles are:

1. To review the relative advantages and disadvantages of alternative techniques currently available for developing local employment projections,

2. To offer various alternatives regarding the techniques developed to be used in the ongoing Occupational Employment Statistics (OES) Program, and

3. To recommend the advantages of separate techniques which have been developed by industry, labor and government.

THE POLICY CONTEXT

The realm of public policy which shapes the occupational employment projections system can be divided into three parts:

1. Those classes of government policy which are not directly related to employment and training, but frequently have significant impact on the employment bases of labor market areas. (Tax, policy, capitol investment and industrial location, public works and other counter cyclical programs, etc.)

2. Public policy directly related to the collection, processing, analysis and distribution of labor market information which becomes available for planning, administrative and evaluative decisionmaking in CETA prime sponsors, vocational education program, etc.

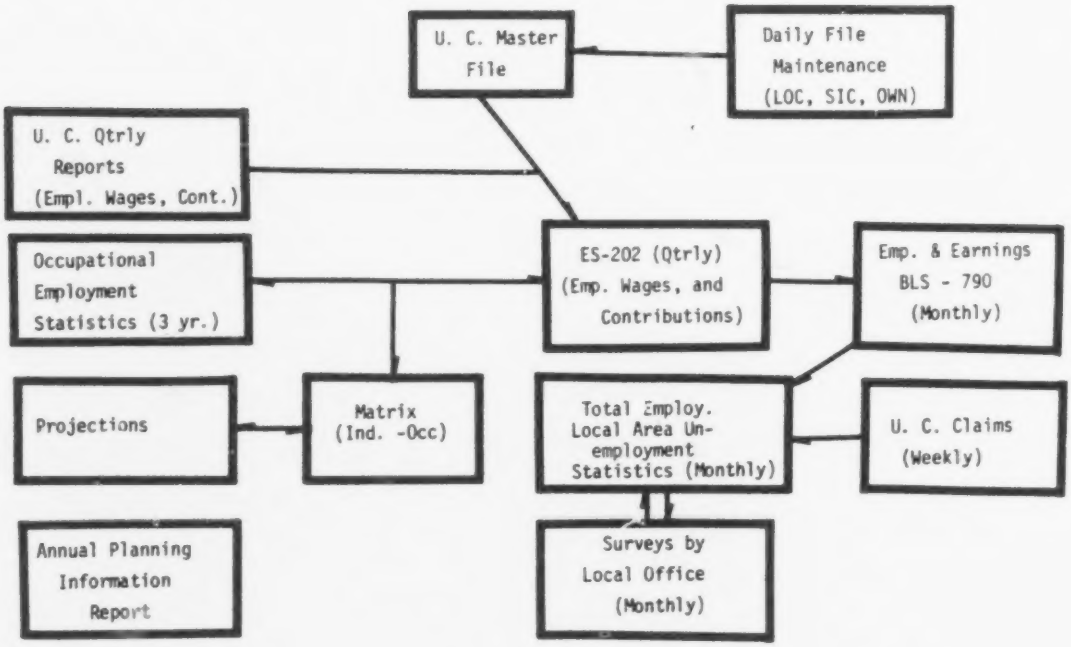
3. The new Private Sector Initiative Program of the 1977 CETA legislation presents potentially new roles for the private sector employers in determining target occupations for labor supply skill development through vocational education policy.

THE ECONOMIC ENVIRONMENT: SOURCES OF EMPLOYMENT INSTABILITY

The principal paradox of economic forecasting for areas is that for a more unstable local or regional economy, the need for reliable and accurate estimates of future labor market conditions for planning and policy making purposes is greater, but so is the difficulty in generating such estimates. The basic reason for this is that all available forecasting technologies, ranging from the most naive to the most sophisticated, to some degree, project past trends into the future.

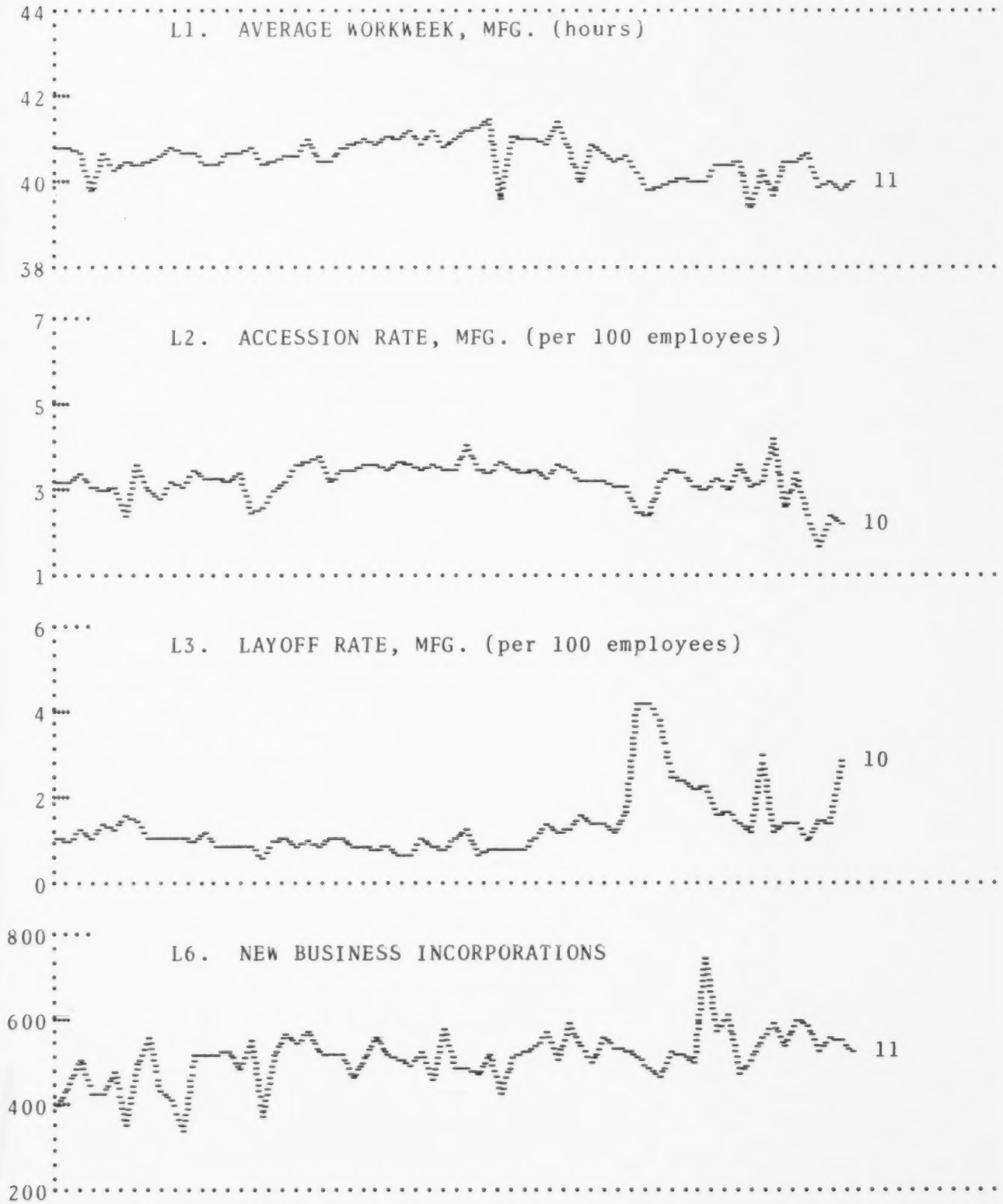
When the key forces acting upon a local labor market are unstable or unpredictable, assumptions about the continuity of basic economic conditions have less validity. Each industry has its own characteristic cycle, and each local economy has its unique industry mix. But it can be predicted with surprising accuracy how a local economy's employment base will change in response to a national recession and recovery, if the latter can be accurately predicted. The art of forecasting is the art of making correct starting assumptions about the economic conditions during the forecasting period.

In ensuing articles about the occupational projection systems, economic models, input-output models, the employer survey approach and comparative analysis of alternative approaches will be discussed together with release of summaries of the 1990 industrial and occupational projections.


U. C. Master File
Daily File Maintenance (LOC, SIC, OWN)
U. C. Qtrly Reports (Empl. Wages, Cont.)
Occupational Employment Statistics (3 yr.)
ES-202 (Qtrly) (Emp. Wages, and Contributions)
Emp. & Earnings BLS - 790 (Monthly)
Projections
Matrix (Ind. -Occ)
Total Employ. Local Area Unemployment Statistics (Monthly)
U. C. Claims (Weekly)
Annual Planning Information Report
Surveys by Local Office (Monthly)

Section

# D CYCLICAL INDICATORS



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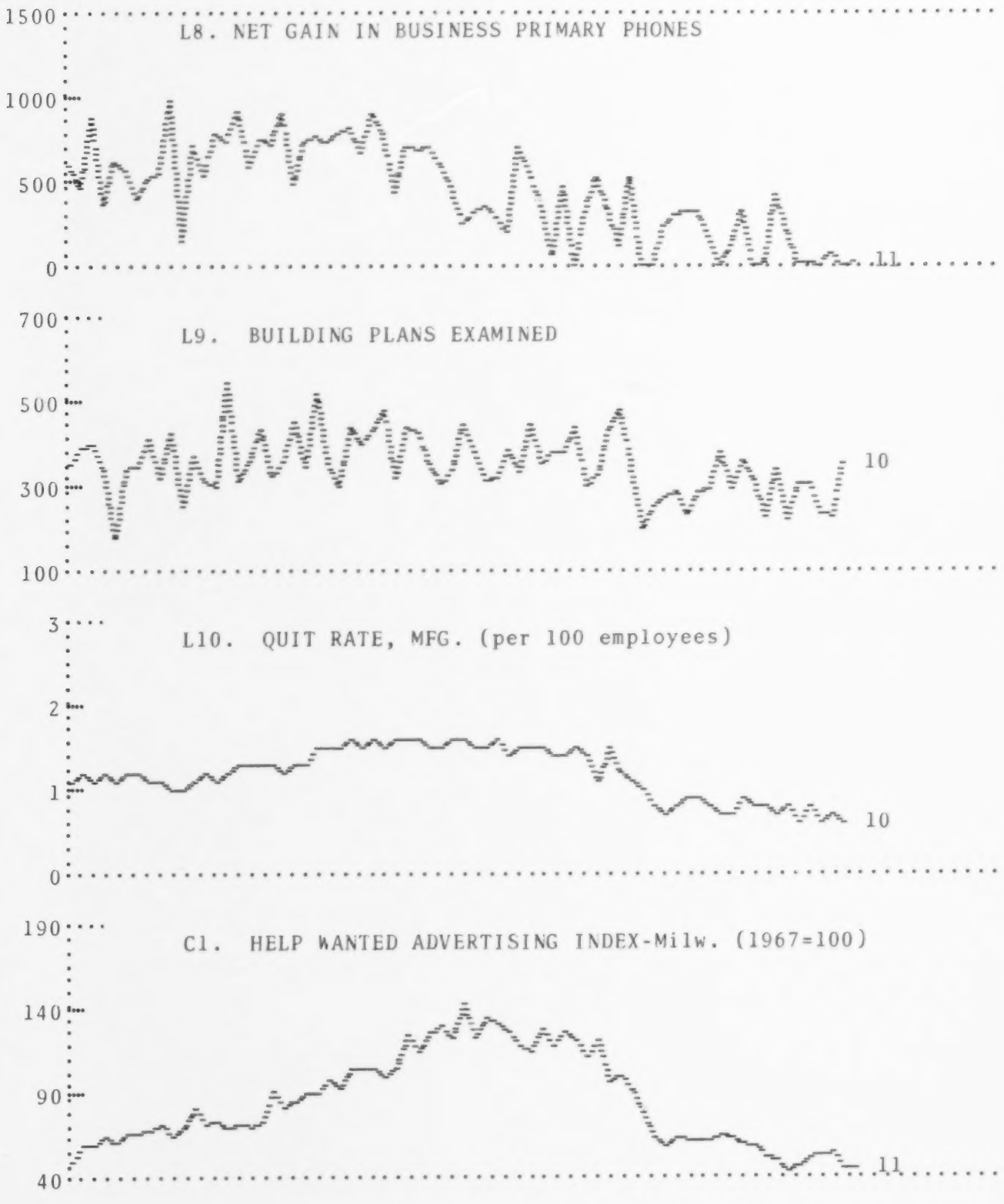
# D CYCLICAL INDICATORS



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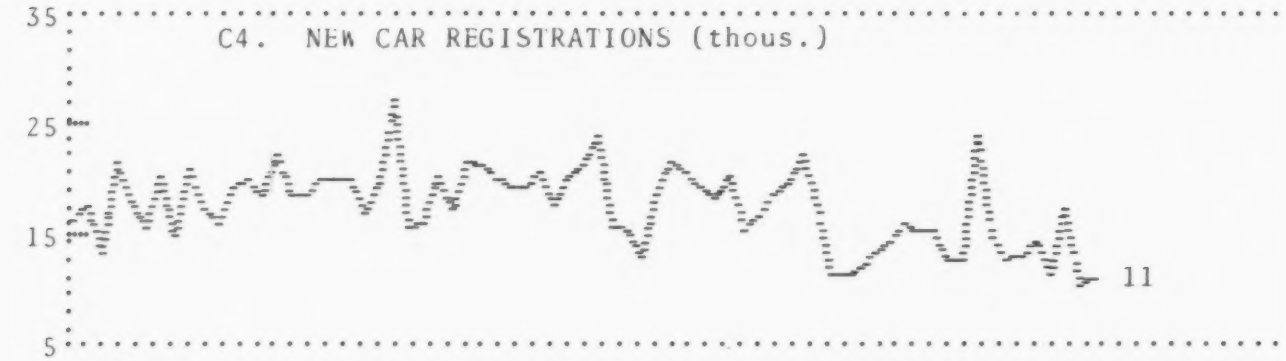


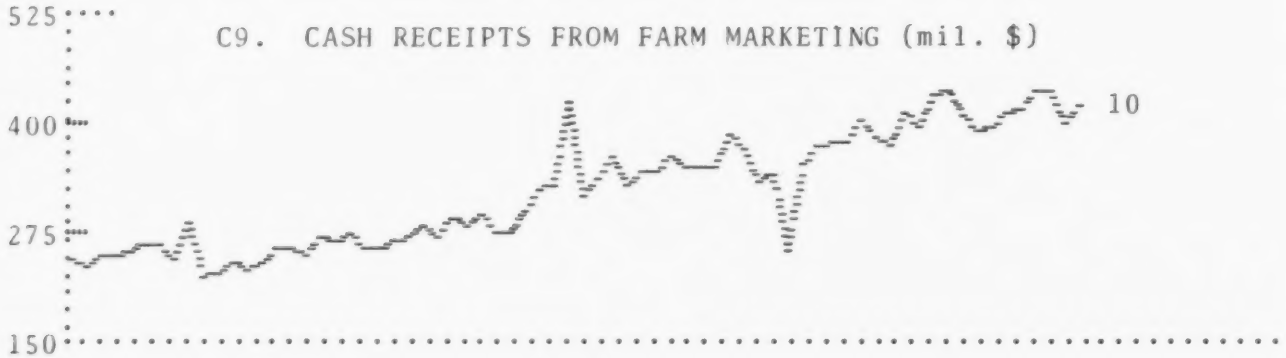


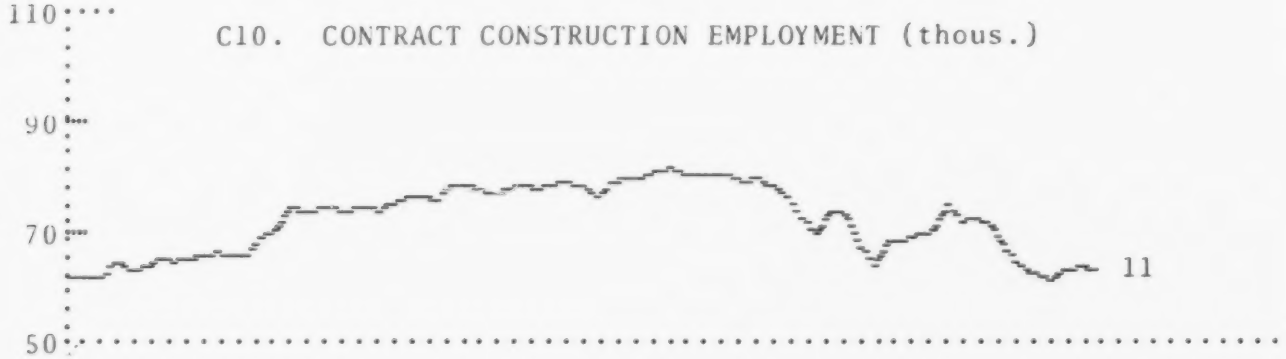


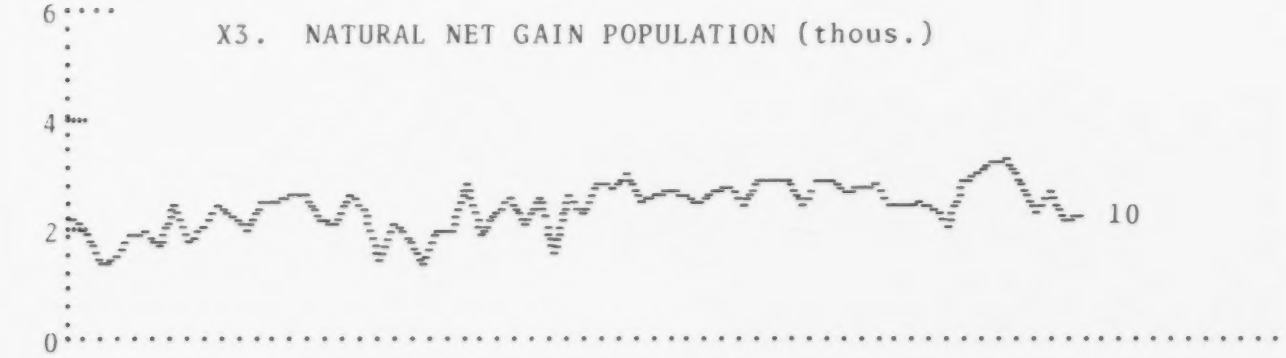




1976 1977 1978 1979 1980 1981 1982

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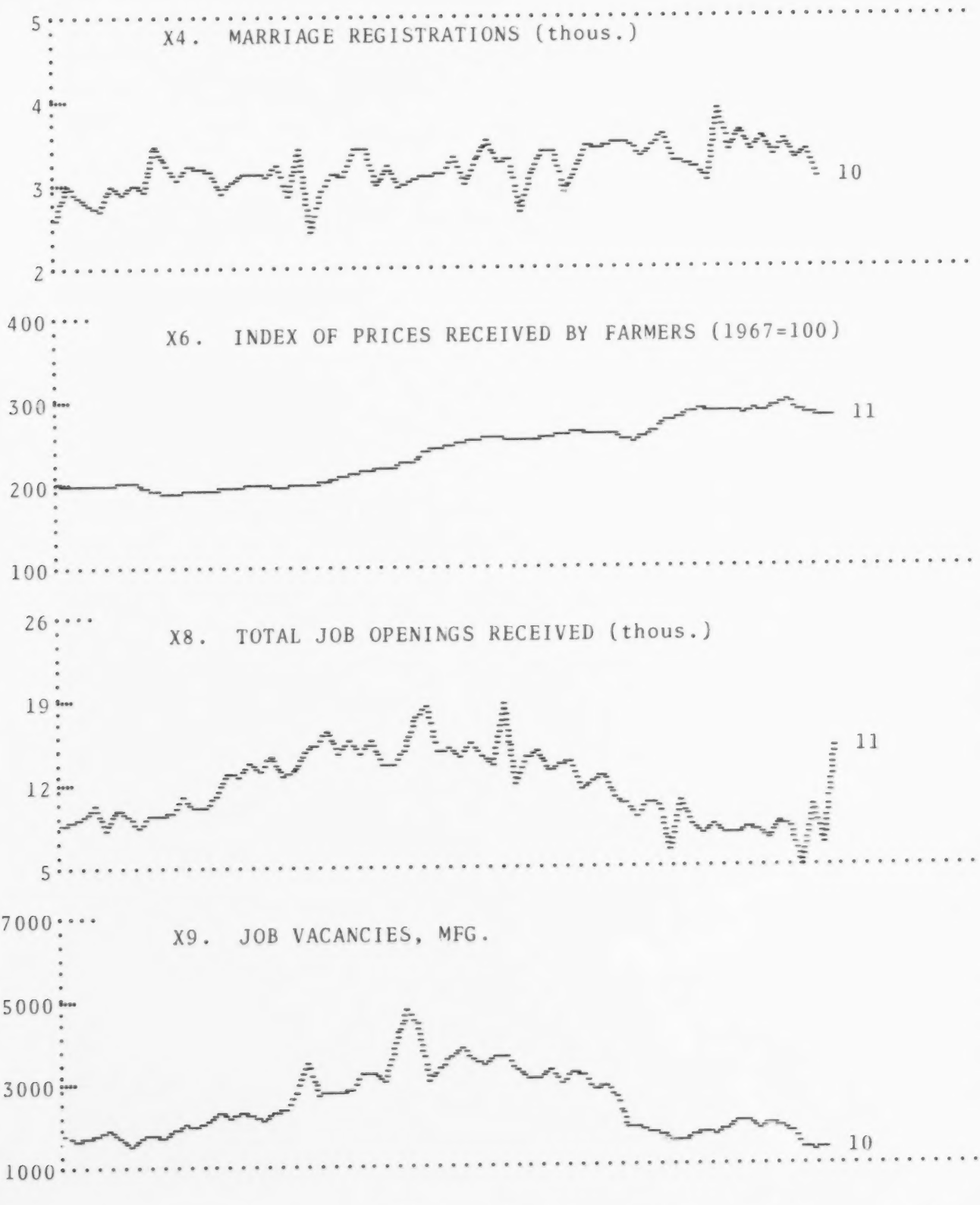
# D CYCLICAL INDICATORS



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In cooperation with private industry, the University of Wisconsin and other state departments, the Department of Industry, Labor and Human Relations will be releasing industrial and occupational projections later this year. In prelude to these projections, we will be describing the history of different methodologies used and invite written articles on the same subject. Articles or comments can be sent to "Projections", P. O. Box 7944, Madison, WI 53707 or Jerry Snow can be reached at (608) 266-0230 for comments.